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(54) Method and apparatus for bit and power allocation, and communication system

(57) The present invention discloses a method and apparatus for bit and power allocation and a communication system. The method for bit and power allocation comprises: determining a set of candidate modulation modes for sub-channels; constructing an SNR lookup table according to a predetermined target BER, the SNR lookup table containing a relationship of an SNR and the number of bits corresponding to a modulation mode in the set of candidate modulation modes at the target BER; obtaining normalized SNRs on the sub-channels; initializing the numbers of bits for the sub-channels; initializing powers for the sub-channels according to the numbers of bits for the sub-channels, the normalized SNRs on the sub-channels and the SNR lookup table; and adjusting the numbers of bits and the powers for the sub-channels in accordance with a principle of maximizing power utilization rate, to obtain the result of the bit and power allocation for the sub-channels.

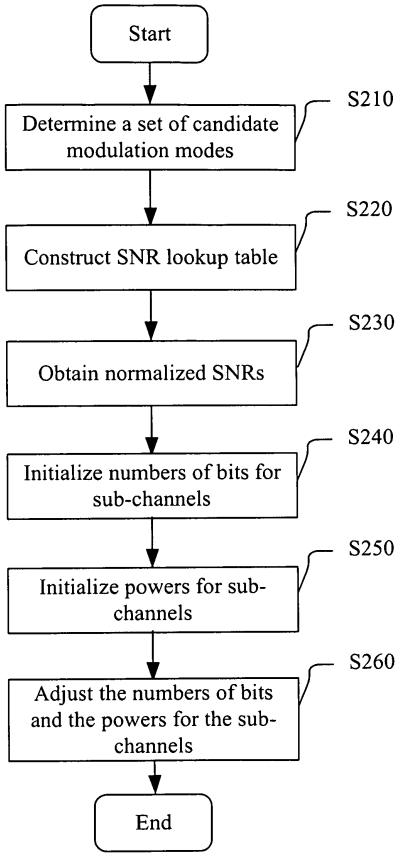

Fig. 2

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	6 April 2016	Ferrari, Jeannot

CATEGORY OF CITED DOCUMENTS

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